REMARKS

This paper is responsive to a non-final Office action dated December 5, 2003. Claims 1-20 were examined. Of these, claims 1-3, 6-11, 13-15, and 17-20 were rejected. Claims 4, 5, 12, and 16 were indicated allowable if rewritten in independent form.

Allowable Subject Matter

Claims 4, 5, 12, and 16 were objected to as being dependent upon rejected base claims, but the Office indicated that these claims would be allowable if rewritten in independent form. The applicants appreciate the Office noting the allowable material. For the reasons set forth below, however, the applicants believe that these claims are allowable in their current form.

Rejection of Claims 1-3, 6-11, 13-15, and 17-20 under 35 USC § 103(a)

Claims 1-3, 6-11, 13-15, and 17-20 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Pat. No. 6,088,740 issued to Ghaffari et al. (hereinafter "Ghaffari") in view of U.S. Pat. No. 6,487,637 issued to Arimilli et al. (hereinafter "Arimilli").

Independent Claim 1

The Office rejected claim 1 as being unpatentable over Ghaffari in view of Arimilli. In making this rejection, the Office stated that Ghaffari teaches a command queue storing information received into the integrated circuit during *consecutive bit times*. In support of this statement, the Office points to figures 1 and 2, column 5, lines 19-23, and column 11, lines 13, et seq. of Ghaffari.

The applicants respectfully traverse the Office's interpretation of the cited portions of Ghaffari. Column 5, lines 19-23 merely state that the interface 250 includes logic necessary to communicate with the memory to which it is connected. The applicants submit that nothing in this cited portion of Ghaffari teaches or suggests, alone or in combination with other cited art, "... a command queue *storing command information* received into the integrated circuit *during consecutive bit times*...". Additionally, the applicants are unable to find anything in column 11 of Ghaffari teaching a command queue storing command information received into the integrated circuit during consecutive bit times.

PAGE 10/13 * RCVD AT 3/5/2004 3:53:02 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/1 * DNIS:8729306 * CSID:512 338 6301 * DURATION (mm-ss):04-10

In rejecting claim 1, the Office also asserted that Ghaffari teaches updating a write pointer to re-point a write pointer to point to the previous command already stored in the command queue. In support of this assertion, the Office points to Ghaffari's abstract, column 2, lines 37-44, and column 17. The applicants submit, however, that these portions of Ghaffari do not teach or suggest, alone or in combination with other cited art, repointing *a write pointer to point to the canceled command* already stored in the command queue, as recited generally in claim 1.

For at least the reasons given above, the applicants submit that the Office has failed to show that the combination of Ghaffari and Arimilli teaches or suggests all the elements recited in the applicants' independent claim 1, and consequently has not made a prima facie case of obviousness under 35 USC § 103(a).

Furthermore, the motivation to combine Ghaffari and Arimilli provided by the Office presupposes that Ghaffari teaches a write pointer to point to a command already stored in a command queue. As noted above, the applicants submit that Ghaffari does not teach repointing a write pointer to point to a command already stored in a command queue, and for at least this reason, respectfully submit that the Office has not provided a valid motivation to combine Ghaffari and Arimilli.

Claim 3

In rejecting claim 3, the Office pointed to Fig. 9 and column 5, lines 19-33 of Ghaffari as disclosing, among other things, that a plurality of write pointers points to locations in respective FIFO buffers to store a next command segment, and wherein segments of a command in different FIFO buffers are received at different bit times. The applicants respectfully submit that the cited portions of Ghaffari do not teach or suggest, "storing *a segment* of a received command...," much less, a plurality of write pointers pointing to locations in respective FIFO buffers to store a next command segment, and wherein *segments of a command in different FIFO buffers* are *received at different bit times*. For at least these reasons, the applicants submit that Ghaffari does not teach or suggest, alone or in combination with other cited art, all of the elements of claim 3. In addition, inasmuch as claim 3 depends from allowable independent Claim 1, claim 3 is itself allowable.

PAGE 11/13 * RCVD AT 3/5/2004 3:53:02 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/1 * DNIS:8729306 * CSID:512 338 6301 * DURATION (mm-ss):04-10

Claim 7

In rejecting claim 7, the Office states that Ghaffari discloses a content counter indicating a number of commands stored in the command buffer (Fig. 9, element 916 and column 11, lines 13 et seq.). The applicants submit that the cited portions of Ghaffari do not refer to a content counter indicating a number of commands stored in a command buffer. Instead, the cited portions of Ghaffari disclose counting destination elements. Gahaffari's destination elements refer to elements of a scatter/gather list (See Gahaffari, col. 11, ll. 54-56). Thus, while Ghaffari may disclose a counter indicating a number of elements in a scatter/gather list, Ghaffari does not teach or suggest, alone or in combination with other cited art, "a content counter indicating a number of commands stored in the command buffer," as recited in claim 7. Since none of the art cited by the Office, alone or in combination, teaches or suggests all elements of claim 7, the applicants respectfully request the Office to withdraw its rejection of claim 7. Also, inasmuch as claim 7 depends from allowable independent Claim 1, claim 7 is itself allowable.

Independent Claim 9

The Office stated that claim 9 encompasses the same scope of invention as claim 1, and rejected claim 9 on the same basis as claim 1. The applicants submit that the Office has not cited any prior art that teaches or suggests, alone or in combination with other cited art, "receiving a *plurality of command segments* corresponding to *one command*... each command segment being *received in a different phase*...". Furthermore, the Office has not cited any prior art that teaches or suggests, alone or in combination with other cited art, "in response to the cancellation indication, performing an *undo-push operation to remove the command segments* stored in the command queue associated with the canceled command." Since none of the art cited by the Office, alone or in combination, teaches or suggests all elements of claim 9, the applicants respectfully request Office to withdraw its rejection.

Independent claim 19

Claim 19 has been amended to correct an informality. No new matter has been added by this amendment, and amended claim 19 is fully supported by the specification as filed.

In the official action, the Office rejected claims 1 and claim 19 on the same grounds. However, the Office did not cite any prior art that teaches or suggests, alone or in combination with any other cited art, an integrated circuit that receives commands from a processor over a command channel, "the command being received in *command segments at corresponding different times...*," as recited in claim 19. The applicants, therefore, respectfully request the Office to withdraw its rejection of claim 19.

Dependent Claims 2, 6, 8, 10-11, 13-15, 17-18, and 20

As stated above, the applicants believe that independent claims 1, 9, and 19 are in condition for allowance. Claims 2, 6, 8, 10-11, 13-15, 17-18, and 20 depend, either directly or indirectly, from allowable independent claim 1, 9, or 19. For at least this reason, the applicant respectfully request Office to withdraw its rejection of dependent claims 2, 6, 8, 10-11, 13-15, 17-18, and 20.

CONCLUSION

In summary, claims 1-20 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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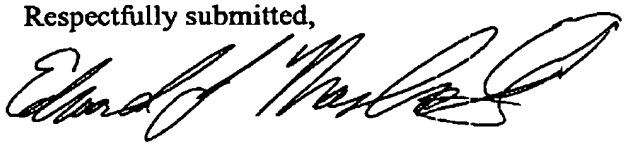
Respectfully submitted,



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PAGE 13/13 * RCVD AT 3/5/2004 3:53:02 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/1 * DNIS:8729306 * CSID:512 338 6301 * DURATION (mm-ss):04-10